No. 62 IMMEDIATE RELEASE June 1947

N E W S N O T E S

OFFICE OF THE SURGEON GENERAL
Technical Information Division
Washington, D. C.

DISTRIBUTION: State, National and South American Medical Journals; Dental, Veterinary and Nursing Journals; Science Editors of newspapers and magazines; Medical Installations in the Zone of Interior and in Theaters of Operations.

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ARMY ENGINEERS TO BUILD GREATEST MEDICAL CENTER

What is planned to be the greatest medical research center in the world will be built at Forest Glen, Maryland, by the Corps of Engineers for the Office of The Surgeon General, according to a recent announcement made by Major General Raymond W. Bliss, The Surgeon General. In keeping with technological advances in all fields, based on experiences in the late war, the center will be equipped to anticipate and meet the medical problems of the future as well as to cope with those of the present. The initial cost is estimated at approximately $40,000,000. Construction will be supervised by the District Engineer, Washington, D. C. Engineer District.

Officially designated as the "Army Medical Research and Graduate Teaching Center," the project will consist of a 1,000-bed general hospital, capable of expansion to 1,500 beds; the Army Institute of Pathology building; the Army Medical Museum and Center Administration building; Central Laboratory Group buildings; and the Army Institute of Medicine and Surgery. A working library, animal farm, quarters for the staff and other buildings are included in the plans.

Located just outside of Washington, the new Army Medical Center will have the advantage of close relationship to the Walter Reed General Hospital, the Naval Medical Center, the medical schools of the District and the proposed new Washington Medical Center, with all of whom ideas can be interchanged. In addition, members of the District of Columbia Medical Society, among them some of the finest specialists in the world, and medical experts from other Government departments, will be available for consultation. The Center will also cooperate with the National Bureau of Standards, the National Institute of Health and the National Research Council.

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Plans for the 1,000-bed hospital building, as announced by the Army Engineers, provide that 200 beds shall be specifically designated as research beds and that these be so located as to be physically accessible to research activities of the various institutes and central laboratories. However, they will remain an integral part of the hospital for service and patient care. In the proposed future expansion, a proportionate number of beds will be reserved for research and these will be located in the same area as the original 200, with the same accessibility to other buildings. Any expansion would be horizontal rather than vertical, making this arrangement possible.

Arrangement and equipment of the hospital will embody the most modern criteria developed as a result of war experiences. As a part of the Army's chief medical center, the hospital will have access to all ideas for new equipment which will be adopted as fast as it is tested and developed. In addition to regular hospital facilities, the plans call for a gymnasium, bowling alleys, swimming pool, auditorium and conference room, post exchange, barber shop, snack and beverage bar, post office, library, bank, game rooms and tailor shop. These would be included in, or directly connected with, the hospital building and would be accessible to patients and post personnel.

The estimated total floor space for the initial building is 650,000 square feet, and this includes the additional features listed above. When the hospital is expanded to 1,500 beds, it is estimated that it will require 825,000 square feet of floor space.

The Institute of Pathology building will house the Department of Pathology, the American Registry of Pathology, and the Army Medical Illustration Service. Extensive facilities for experimental research and training in pathology and necessary facilities for the prosecution of the work of the departments will be provided. Possible future expansion will be kept in mind in planning this building.

The building will be connected with the Army Medical Museum in order to facilitate traffic between the two buildings, due to the fact that a large portion of museum exhibits will be furnished and maintained by the Institute of Pathology. All floors of this building will also be connected with the Central Laboratory Group because initial laboratory facilities to be provided will be used by the Institute of Pathology, although in the ultimate development of the center, all research activities of the various groups will be correlated and the expanded Central Laboratory Group will serve research and teaching activities of all the institutes. The research beds of the hospital building also are to be accessible to the Department of Pathology in this building, the estimated floor space of which is 120,000 square feet.

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The Central Administration Building will provide facilities for the administration of the entire center and will house the Army Medical Museum, the main auditorium of the center, the research library for staff and students in training, and certain graduate teaching facilities which will be used by all institutes. It will also be the focal point of all activities which will bring the lay public to the center on business in which it may have a scientific interest. Since public admission to some of the buildings and the Central Laboratory Group is not desirable, the use of this building as the public center would make control of lay personnel comparatively easy. This would not include admission of the public to the Hospital Building which would be an independent problem.

Also, certain areas of the museum would be limited to staff and students for research and teaching, although the larger part of the exhibit space of the museum would be open to the public. The research library would be limited to staff and students in research and teaching.

The main auditorium will be used for large staff meeting, meetings of personnel for lectures and large public assemblies. It will be equipped with the latest in motion picture projectors in order to illustrate the lectures given.

The estimated total floor area is 110,000 square feet.

The Central Laboratory Group will consist primarily of basic science laboratories serving the entire center. These will be constructed as the need for them grows, the first being devoted to the service of the Institute of Pathology. As other institute buildings are constructed, the scope of existing laboratories will be broadened and additional facilities added as required.

The estimated total floor area of this group of buildings is approximately 113,000 square feet.

The Institute of Medicine and Surgery building will house the following departments: Research Medicine, Research Dentistry, Veterinary Medicine, Research Surgery, X-Ray and Radiation and Preventive Medicine.

Ample laboratory, administrative and storage facilities will be provided for these various departments for their work in experimental research and teaching. The building will be connected with the Central Laboratory Group because certain phases of research projects carried on by this institute will be pursued in the Laboratory Group which serves all institutes. The research beds of the hospital will also be readily accessible to the various departments of this institute.

The estimated total floor area in this building is 140,000 square feet.

ARMY ENGINEERS TO BUILD GREATEST MEDICAL CENTER (Continued)

The Center will serve to bring together many important units now scattered in various parts of the United States. The Medical Nutrition Laboratory now located in the Quartermaster Depot at Chicago, will be brought here. This institute, it is explained, now deals almost entirely with normal diets. It is proposed, however, to study the needs of wounded men, some of whom lose twenty or thirty body pounds in a short period of hospitalization, and see if something can be done to remedy this loss.

The Medical Field Research Laboratory is now located at Fort Knox, Kentucky. This is a physiological laboratory which handles what might be termed "human engineering". It's function is to find out what man can stand in the way of cold, heat, fatigue and sudden change, and what effect it has upon him. Ways of remedying any ill effects are also studied.

The Surgical Research Unit, now located at Fort Sam Houston, Texas, is devoted largely to traumatic surgery, studying the type of injury received in time of war and proper methods of treating it. It is pointed out that the man wounded in battle has to wait at times for as much as twelve hours or more before being hospitalized, whereas the civilian is generally in a hospital within an hour. These differing conditions call for different methods of treatment and must be carefully studied if such treatment is to be successful.

SECRETARY OF WAR PATTERSON TELLS OF ARMY'S MEDICAL PERSONNEL

Secretary of War Robert P. Patterson, speaking before the American Medical Association in Atlantic City, New Jersey, on June 10, expressed his "appreciation of the contribution to victory made by the American doctor in World War II" and praised the medical service of the American Army in that war as "the finest of any army in the world, -- any place, any time".

He stated, "it was the caliber of the medical care during the war that made the Army resolve to maintain the best features of that service in the years ahead. And so the War Department is taking steps to provide for its modern Army a Medical Corps that can do this very thing."

He stated further "a basic essential to such a Medical Corps is personnel -- enough and of the highest possible qualifications. As a step towards making Army medicine a satisfying career for qualified doctors, a bill has been introduced in Congress providing the means to make the Army more tolerable from an economic point of view, and -- more important -- to make service in the Medical Corps a stimulating experience from a professional point of view."

Speaking before the House of Delegates, Secretary Patterson said, "present plans of the War Department call for an Army of 1,070,000 men. We shall need an Army of more or less that size so long as we have our present commitments for occupation abroad and national security at home.

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SECRETARY OF WAR PATTERSON TELLS OF ARMY'S MEDICAL PERSONNEL (Continued)

"6,000 doctors are required to provide adequate medical service for an army of 1,070,000 strength. At present we have 5,000 doctors in the Medical Corps. However, only 1,100 of these are in the Regular Army. If the present state of national emergency were to be terminated we would lose all our doctors except those in the Regular Army. Even if the emergency remains in effect, the younger officers now on temporary service will be leaving in large numbers on expiration of their two years' service. Unless prompt measures are taken, the prospects are that we will be short 3,700 doctors by mid-year of 1949, and short 4,400 doctors, or more than two-thirds of our requirement, by mid-year of 1950."

The Secretary said a major step in the program to provide a professionally competent and adequate medical service for the Army is the introduction in Congress of legislation to "provide for the procurement of physicians and surgeons in the Medical Department of the Army". That legislation is identified in the House of Representatives as H.R. 3174, and in the Senate as S. 1143.

"At a casual reading of the bill," he continued "it would seem that the principal purpose of that legislation is to provide more pay for medical officers. Such a conclusion would confuse the means with the end. The actual purpose of that bill is to promote and enhance the professional standing of the Army Medical Corps.

"The War Department is convinced, after more than 170 years of close association with the medical profession, that the skill of the American medical man cannot be bought for dollars and cents. But it is given generously as a matter of patriotism and professional pride. The doctor can have such a pride in the Army medical service only when that service has the highest possible professional dignity. I am already on record with the statement made last year that 'it is my sincere desire to maintain the medical standards of the Army at the highest possible professional level.' I want now to reiterate that statement as expressing both the Army's and my determination. General Eisenhower also expressed the Army's position when, in a memorandum to the Army's top commanders, he said:

> 'The realization of our objectives places upon us, the military, the challenge to make our professional officers the equal in knowledge and training of civilians in similar fields and make our professional environment as inviting as those outside.'

"The War Department knows that a medical service equal to the needs of our modern Army can be obtained and continued only by establishing a professional level equal to the best in civilian practice. Establishment of that professional level is our goal. All other advances, benefits or gains serve only as steps toward that goal."

In concluding he said, "The basic need of an adequate Army medical service is a professional competence second to none. The legislation now before Congress is designed to go a long way toward making that high grade professional attainment possible. The War Department will do everything else in its power to establish and foster the professional environment required. I ask your support of this legislation and of our entire Medical Corps program."

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MEDICAL COLLEGE OF VIRGINIA CONFERS HONORARY DEGREE ON GENERAL DENIT

Brigadier General Guy B. Denit, USA, Deputy for Plans, Office of The Surgeon General, received the honorary degree of Doctor of Science from the Medical College of Virginia on June 17. General Denit was the only one chosen to receive this honor for 1947.

NURSES, DIETITIANS AND THERAPISTS OFFERED PERMANENT ARMY COMMISSIONS

The Adjutant General of the Army is ready to receive applications from unmarried nurses, dietitians, physical therapists and occupational therapists who desire appointment in the Army Nurse Corps or Women's Medical Specialists Corps of the Regular Army made possible by recent legislation which authorizes permanent commissions to these groups.

Those who served honorably during World War II will be given preference for appointments to fill the authorized Regular Army vacancies. Applications from nurses up to 35 are accepted at this time. The age limit is 45 for the dietitians, physical therapists and occupational therapists.

Application blanks for Regular Army appointments in these Corps may be obtained from Army general hospitals; Headquarters of Armies in the United States; placement and counselling services for state and district nursing associations and national associations of dietitians, physical therapists and occupational therapists; and The Surgeon General's Office, Attention: MEDCM-B, Washington, D. C.

A program has also been approved for the appointment of nurses, dietitians, physical therapists and occupational therapists in the Army Nurse Corps Section and the Women's Medical Specialist Corps Section of the Officers' Reserve Corps.

To procure application blanks for the Reserve Corps, write to the Office of The Surgeon General, Washington, D. C.

ORC COMMISSIONS ARE AVAILABLE FOR NURSES, THERAPISTS, DIETITIANS

Nurses, physical therapists and dietitians will now be able to apply for commissions in the Officers Reserve Corps under the terms of the recently enacted legislation, the War Department announced recently.

Applications for Reserve Commissions in the Army Nurse Corps and for physical therapists and dietitians, members of the newly created Women's Medical Specialist Corps, are available at all Army posts and Recruiting Stations throughout the United States.

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ORC COMMISSIONS ARE AVAILABLE FOR NURSES, THERAPISTS, DIETITIANS (Continued)

Nurses and medical specialists who served hohorably during World War II will be given preference for appointments to fill the authorized Reserve vacancies. Applications from nurses, physical therapists and dietitians up to the age limit of 45 will now be accepted.

Members of these Women's Reserve groups are eligible for all the privileges and emoluments and subject to the same responsibilities as members of other Reserve Corps of the Army. Members of Reserve Corps may volunteer for active duty at any time.

Applications will be forwarded to The Adjutant General, Washington, D. C., Attention: AGSO-R.

DR. MENNINGER MADE PRESIDENT-ELECT AMERICAN PSYCHIATRIC ASSOCIATION

Dr. William C. Menninger, Chief Consultant in Neuropsychiatry to the Secretary of War, and Secretary of the Menninger Foundation, Topeka, Kansas, was made President-Elect of the American Psychiatric Association at the annual meeting of the Association held in New York on May 20, 1947.

Dr. Menninger was former Brigadier General and wartime Chief Consultant and Director of the Neuropsychiatry Consultants Division in the Office of The Surgeon General. He received the Distinguished Service Medal for his work in the Army and the first Lasker Award in November 1944 for his contributions to the field of mental hygiene.

COLONEL HUME AWARDED TYPHUS MEDAL

Colonel Edgar Erskine Hume, M.C., now assigned to the Civil Affairs Division of the War Department General Staff, was recently awarded the United States of America Typhus Commission Medal for his meritorious service in connection with the epidemic of typhus fever in Naples in 1943 and 1944. The presentation was made by Major General Raymond W. Bliss, The Surgeon General.

DISCHARGE OF MEDICAL OFFICERS LIBERALIZED

The War Department announced recently a streamlining of discharge criteria for all Medical Department officers effective July 1. All non-volunteer doctors, dentists, dietitians, Veterinary and Sanitary Corps officers will be eligible for separation upon completion of two years' service. Nurses, physical therapists, and officers of the Medical Administrative Corps except those who have volunteered for extended active duty will be eligible for immediate separation.

Critically needed medical officers can still be individually retained where it is essential for the proper care of patients, the announcement stated. At present there are thirty-six specialists being retained as essential in Army hospitals.

MORE

DISCHARGE OF MEDICAL OFFICERS LIBERALIZED (Continued)

Major General Raymond W. Bliss, newly appointed Surgeon General, explained that this new demobilization plan will permit the separation of medical specialists who previously have been subject to three years' service. General Bliss emphasized an important advantage of the plan is that it will facilitate the reclassification of young doctors in specialist grade.

Service requirements for members of both the Veterinary and Sanitary Corps will be reduced from thirty-two months to twenty-four months. Practically all non-volunteer Medical Administrative Corps officers and Physical Therapists have already been separated and the reduction in length of service requirements will affect only a handful of these officers. There is no change for dentists, dietitians and nurses.

DR. STANHOPE BAYNE-JONES HEADS BOARD OF NEW YORK HOSPITAL-CORNELL CENTER

Dr. Stanhope Bayne-Jones, Consultant to the Secretary of War and professor of bacteriology of the Yale University School of Medicine, has been appointed the first president of the Joint Administrative Board of the New York Hospital-Cornell Medical Center. The joint board is made up of representatives of New York Hospital and of Cornell University. As president Dr. Bayne-Jones will be responsible for the formulation of policies and an over-all program for the center.

Dr. Bayne-Jones is a veteran of both world wars and holds a reserve commission as Brigadier General. He served from 1942 to 1946 in the Office of The Surgeon General as Deputy Chief of Preventive Medicine Service, Administrator of the Army Epidemiological Board and Director of the United States Typhus Commission. He is currently director of the Board of Scientific Advisers of the Jane Coffin Childs Memorial Fund for Medical Research.

COLONEL GRAHAM AWARDED LEGION OF MERIT

Colonel William Donald Graham, MC, USA, Deputy Chief of Hospital Division, Office of The Surgeon General, was recently awarded the Legion of Merit for "performing exceptionally meritorious services" as Commanding Officer, of the 158th General Hospital in England from November 1944 to July 1945. Major General Norman T. Kirk, former Surgeon General presented the award.

The citation stated "his command performance, devotion to duty, professional ability, and ingenuity were superb. He was responsible for the outstanding accomplishments of the hospital in the field of neurosurgery and plastic surgery during a period of maximum flow of casualties. His work has reflected great credit on the Medical Department of the United States Army."

Colonel Graham received his Doctor of Medicine degree from the University of Minnesota Medical School in 1930 and entered on extended military service in 1934.

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COLONEL KIMBROUGH SERVES AS LIAISON WITH AMERICAN BOARD OF UROLOGY

Colonel James C. Kimbrough, Chief of the Urological Section, Surgical Service, Walter Reed General Hospital, was recently appointed Consultant in Urology to the Surgeon General, U.S. Army, for liaison between the army and the American Board of Urology.

Colonel Kimbrough has specialized in Urology for over twenty-five years. Since 1921 he has served almost exclusively in the position of chief urologist at various army hospitals. His experience has been punctuated, however, with other duties. During the war he was chief of the Professional Services Division in the Office of the Chief Surgeon of the European Theater of Operations from 1942 to 1945, and in 1945 and '46 he served as commanding officer of the Convalescent Hospital, Percy Jones Hospital Center at Fort Custer, Michigan.

A graduate of Vanderbilt University and Hiwassa College at Madisonville, Tenn., Colonel Kimbrough entered the regular service as a medical officer in 1917. He is a member of the American Medical Association, the American Board of Urology, the American College of Surgeons, the Royal Society of Medicine, London (honorary), and the Academy of Surgeons, Paris (honorary).

DR. VAIL RECEIVES LEGION OF MERIT

Dr. Derrick T. Vail, Professor of Ophthalmology at Northwestern University, and Consultant to the Army Medical Department was recently awarded the Legion of Merit for "outstanding services" as Senior Consultant in Ophthalmology in the European Theater. The presentation was made by Major General Paul R. Hawley, now Chief Medical Director of the Veterans Administration, who was Chief Surgeon of European Theater of Operations during the war.

"In addition to establishing and maintaining a singularly high standard for the treatment and supervision of ophthalmological cases", the citation stated, "Colonel Vail demonstrated exceptional qualities of adaptability and a thorough professional knowledge by encouraging the adoption of many improvements, resulting in the conservation of time and manpower.

"His whole-hearted interest", the citation continued," in the rehabilitation and care of blinded American soldiers, his keen foresight, and exceptional devotion to duty reflect the highest credit upon himself and the Armed Forces of the United States."

The citation covers the period from October 5, 1942 to October 14, 1944, when Dr. Vail, then Col. Vail, served in ETO headquarters as Senior Consultant in Ophthalmology.

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MEDICAL SYMPOSIUM HELD AT ARMY MEDICAL CENTER

The Army's latest developments in medicine and surgery were discussed in a three-day symposium held at the Army Medical Center, Washington, D. C., on June 3, 4, and 5. Taking part as speakers were Major General Raymond W. Bliss, Surgeon General of the Army, and Dr. Paul R. Hawley, chief medical director for the Veterans Administration. The latest aspects of medicine and surgery, as applied and developed by the Army were presented by many of the top men in their respective fields throughout the country. It is planned that the Army Medical Department will conduct a symposium of this nature annually to be held each year at a different general hospital.

After the address of welcome delivered by Brigadier General George C. Beach, Jr., commanding general of the Army Medical Center, the following subjects were included in the discussion:

Resume of "SUMMARY OF U. S. ARMY EXPERIENCES WITH STREPTOMYCIN"
By Maj. Edward J. Pulaski, MC, Brooke General Hospital

Systematic study of streptomycin now underway at Brooke Army Medical Center shows streptomycin is proving effective against several serious and sometimes fatal conditions against which neither penicillinnor the sulfa drugs have any beneficial results.

Streptomycin still is scarce, costly and available for general medical practise only under special cirmumstances. Many exaggerated and unfounded reports have been spread as to its effectiveness until it has gained the reputation of being a "miracle drug". The study represents the results of the army's cumulative experience with streptomycin.

There can be no question, that the drug is effective against several disease causing-organisms which are resistant to both penicillin and any of the sulfa drugs.

Probably the clearest case is for use of the new drug in tularemia, the causative organism of which appears especially sensitive to streptomycin. The response usually is rapid and the cure is permanent.

It is of real value in bacteremia, fever due to bacterial organisms circulating in the blood, -- but only providing the particular germs involved are sensitive to it. Several, including two fairly common forms of streptococci, are almost completely resistant to penicillin.

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MEDICAL SYMPOSIUM HELD AT ARMY MEDICAL CENTER (Continued)

Streptomycin also has proved a life saver in several mixed infections of the ear, brain and meninges, or linings of the brain and spinal cord. It is proving quite effective in mastoid infections, usually in conjunction with penicillin but where organisms are present which are resistant to this drug. Some of the most dramatic results have been obtained in cases of meningitis, when it is introduced directly into the cerebrospinal fluid. Meningitis may be due to one or more of several organisms, in addition to the so-called meningococci, which are the most common cause. Streptomycin has saved several lives in the army practise.

There also has been some success, although it is difficult to evaluate at present, in infections of the lungs and pleural cavity where both penicillin and the sulfa drugs have proved ineffective. Good results were obtained in treatment of infantile diarrhea. The drug, which is tasteless, was incorporated in the milk formula.

Some of the best results have come from use of the drug to prevent the spread of peritonitis, provided a susceptible organism is responsible for the condition. There were 52 recoveries among 57 patients, and the deaths of three of those who succumbed was not due directly to the peritonitis. Best results were obtained when streptomycin and penicillin treatments were combined.

In wound infections the new drug cannot take the place of penicillin, although it may be of considerable value in certain selected cases.

Ordinarily the drug should not be used without first determining the causative organism and the dosage to which it is susceptible.

Resume of "NEW CONCEPTS ON AMPUTATIONS AND PROSTHESES"
By Col. August W. Spittler, MC, Walter Reed General Hospital

Artificial hands that look like real hands and serve many of the same purposes are being developed by the Army Medical Department.

Hitherto the most useful artificial hand had been a steel hook. Patients may become very skillful in its use but always are conscious of its appearance.

With light plastic materials which look like flesh the problem now offers little difficulty so far as appearances are concerned. Activation of all the fingers and the finger joints usually has resulted in too complex a unit to be useful. Use of only the index and middle fingers to oppose the thumb appears to be the best combination, using the little and ring fingers for a stationary hook with little change in a position. Such a hand has been developed here, using multiple joints in the fingers in place of phalangal segments. The index and little finger move towards the thumb in a converging motion. Most of the usual 30-pound pull which can be produced by the shoulder shrug is delivered at the finger tip. The ideal features of a hand -- to be able to hold an object 3¼ inches in diameter, resiliant pads on the finger tips and positive closing control is met in this hand.

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Development has also been made of an artificial ankle with a spring mechanism which offers much of the advantage of a real ankle.

Scores of suggestions for artificial limbs are being offered but many of them are so complicated as to be unfeasible unless the number of amputees become great enough to support repair stations like filling stations with enough mechanics to maintain them night and day.

Resume of "THE PHYSIOLOGICAL EFFECTS OF WOUNDS AS GUIDES FOR TREATMENT OF FRESHLY WOUNDED MEN" by Dr. Henry K. Beecher, Massachusetts General Hospital

New principles in treatment of the severely wounded, based on study of more than 1,600 cases from the Cassino and Anzio battles early in 1944 were described from a special study made at that time of care of the wounded from the time of the injury until the patient was in the hands of a surgeon.

One curious finding was that in the majority of cases severely wounded men do not suffer severe pain. Three-fourths of those who arrived at the most forward hospital, even though they had had no morphine for five hours or more, said they were not suffering enough to want anything done about it.

On the other hand those in a state of shock due to blood loss nearly always complained of severe thirst-- presumably due to the fact that water had been drawn from the tissues to replenish the fluid in the circulation. This is the explanation, it is believed of the plea for "water" so often heard on battlefields throughout history.

This state is the most serious type of shock encountered. It was treated wherever possible with blood plasma in copious amounts. But in the men wounded in the Italian battles it was found the plasma to be much less depleted than the red blood cells--- so much so that there must be some unknown reservoir of proteins in the body which is drawn upon in case of emergency.

The plasma treatment is of great value only to tide over the period until a whole blood transfusion can be made. Shock could be cured only by whole blood. It was found essential to administer whole blood even when the soldier was on the operating table.

It was shown that the quantity of blood and plasma needed for resuscitation can be reduced to about one half that called for by older and slower methods.

At the same time delay in undertaking surgery because of shock can be cut about two-thirds by the whole blood transfusions while the surgeon is at work.

This economy of time and material will be clearly necessary if military action ever takes place in difficultly accessible regions of the world, such as the Arctic or Antarctic, where problems of supply will be great. It will also be necessary if large amounts of the population should ever be subjected to atomic radiation, with the consequent great blood loss from the serous surfaces of the body.

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Resume of "RECENT ADVANCES IN THE TREATMENT OF LUNG ABSCESSES"
By Dr. Brian B. Blades, Walter Reed General Hospital

Refinements in operative technics, improved anesthesia and the benefits of antibiotic protected surgery have made it possible to apply safely pulmonary resection for the treatment of chronic, pulmonary abscesses. The approximate mortality rates in the surgical treatment of pulmonary abscess in 1942 was 15.2%. At the present time operative mortality for excisional surgery in the treatment of chronic pulmonary abscess is about 5%; moreover, the number of satisfactory cures has increased from approximately 57% in 1942 to more than 80% at the present time.

During the past war the incidence of acute pulmonary abscesses in members of the Armed Forces was low. It is not surprising that pulmonary abscesses secondary to wounds of the chest were uncommon since it has been established for many years that the lung has tremendous resistence to infections introduced by foreign bodies. It is of interest however, that so few cases of acute, fulminating pulmonary abscesses were found in the millions of people who were in the Armed Forces. Some idea of the rarity of acute pulmonary abscesses requiring drainage can be obtained when one realizes that during the entire war only three lung abscesses were drained at Walter Reed General Hospital. The experiences of others in large Army general hospitals were similar.

The rarity of acute, fulminating pulmonary abscesses and the replacement of this lesion by more chronic, idolent type of pulmonary suppuration may be explained by two factors. Individuals on military duty have good dental care. Dental caries, abscessed teeth and so forth, do not exist, or if they do are promptly remedied. Therefore, one of the chief etiologic factors for the production of pulmonary abscesses was eliminated. The almost universal use of the sulfonamide derivatives and later penicillin in all types of pulmonary disease probably accounts for the absence of fulminating infections and explains the existence of a more chronic, less severe type of abscess formation.

Since patients were not extremely ill, there was a tendency to delay surgical intervention and, in fact, probably in many cases the infection responded to antibiotic therapy and surgical intervention was avoided. In cases in which tissue destruction was sufficient to require operative treatment the lesions were apt to be multiple involving an entire lobe and in some cases the entire lung. Extirpation of the diseased tissue in these cases gave excellent results. Except in very early cases where the abscesses were well circumscribed and drainage was instituted early, final results were unsatisfactory because of the presence of multiple abscesses and destruction of pulmonary parenchyma.

Data accumulated during the war and subsequent experience in civilian hospitals indicates that in the great majority of cases excisional surgery is the treatment of choice for pulmonary abscesses of all varieties. The necessity for emergency drainage of a pulmonary abscess in its very early stage has been largely obviated by the use of penicillin and other antibiotics.

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Resume of "RECENT DEVELOPMENTS IN MALARIA THERAPY"
By Dr. Alf S. Alving, University of Chicago

American scientists tested approximately 15,000 chemical compounds during the war in their search for malaria cures or suppressives, but only the 13,276th (pentaquine) offered promise of a "cure" for the tertian malaria which caused loss of 16,000,000 manpower days to the army and navy, together with 363 deaths.

Several drugs were developed which "suppressed" the disease which was one of the greatest single medical problem of the war. Even though a soldier became infected the characteristic chills and fevers did not appear while such a drug was taken regularly, and the man continued to work or fight. The malaria, however, was almost certain to appear as soon as the drug was stopped.

There was one drug which was known to "cure" the benign tertian malaria caused by the bite of a mosquito known as p. vivax, found in both the Pacific and Mediterranean areas. This form of the disease is highly disabling but seldom fatal. The drug was a compound known as plasmochin. It was highly toxic-- altogether too much so for use in the field.

Hundreds of compounds related to plasmochin were tested with experimental animals, both for toxicity and effectiveness against malaria. Finally one known as pentaquine was found to be only about half as toxic as plasmochin and to have considerably greater curative value.

Before the new drug was used with soldiers or sailors it was tested extensively on a volunteer basis with convicts in state prisons, and conscientous objectors each individual of which volunteered to receive infections with the malaria.

The tests to date indicate, he reported, that the new drug in appropriate doses will reduce the relapse rate in severely infected patients from 98 percent to 16 percent. In moderate infections the relapse rate can be cut to four percent. Pentaquine works best, he said, when combined with quinine.

It is not, however, a safe drug for self medication and requires hospitalization, since several complications are possible. In very heavy infections several treatments may be necessary.

Two valuable suppressive drugs were developed, in addition to atabrine, which was used extensively and with fair success early in the war. These are the American chloroquine and the British paludrine. Both were superior in certain aspects to atabrine and each possesses certain advantages which must be weighed against the particular circumstances.

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Resume of "STREPTOMYCIN IN THE TREATMENT OF TUBERCULOSIS"
By Lt. Col John B. Wallace,MC, Fitzsimons General Hospital

Streptomycin has a beneficial effect, at least temporarily, in a majority of the cases of tuberculosis in which it is used but the treatment is accompanied by some real dangers.

Such is the indication from observations now underway at the Army's Fitzsimons General Hospital at Denver, a center for tuberculosis treatment.

In the spring of 1946 the Army, Navy and Veterans' administration were allotted an amount of the still rare and costly drug sufficient to permit an investigation of its efficacy, particularly in respect to the disease for which extravagent claims had been made. Fitzsimons hospital was selected as the army installation for this project, carried out under the Division of Research and Development of the Office of The Surgeon General.

It is still too early to make definite pronouncements.

Some of the more overt and alarming symptoms of tuberculosis subsided. No doubt remains that streptomycin should be used without delay in cases of tuberculous meningitis, which usually are rapidly fatal. It also may be used with discretion and probably good results in cases of pulmonary tuberculosis.

It is by no means a "cure", however, and there is some evidence that use of the drug slows down the development of the body's natural resistance to the tuberculosis germ. It may temporarily mask symptoms which will appear in more aggravated form later.

Resume of "RESEARCH IN VIRUS DISEASES"
by Dr. Joseph E. Smadel, Army Medical Department Research and Graduate School

Discovery by Army Medical Corps officers of two hitherto unknown virus diseases of men was announced.

Virus diseases, caused by the most minute known organisms which are relatively highly resistant to any of the sulfa drugs or penicillin, are responsible for some of the most devastating human and animal maladies. These include influenza, poliomyelitis, parrot fever, and a host of others.

The first of the new diseases is encephalomyocarditis. The responsible virus was isolated from a dead chimpanzee at an Army Air Forces hospital at Coral Gables, Fla., during the war. At that time no human cases were suspected.

MORE

MEDICAL SYMPOSIUM HELD AT ARMY MEDICAL CENTER (Continued)

The doctors found that this virus caused a rapidly fatal disease with a characteristic pattern in mice, hamsters, cotton rats and monkeys and a non-fatal fever in guinea pigs and rabbits. In the fatal cases it attached the heart muscles, as does ordinary myorcarditis, and at the same time caused serious lesions in the brain. The brain attack was chiefly on the cortex of the cerebellum, the organ of "balance".

The organism was shown to have no relationship to about 20 unknown human and animal viruses with which it was matched. A person who once has been infected with a virus disease developes antibodies in the blood which give some degree of protection against re-infection. No such antibodies were found in the blood of hospital patients. There was grave doubt whether encephalomyorcarditis actually was a disease of man.

The antibodies were found, however, in frozen blood samples from patients in a Manila Army Hospital in 1945. There had been no satisfactory diagnosis of these cases. It was recalled, however, that among troops in the Pacific there had been outbreaks of so-called three-day fever. It was, as the name signifies, a fever of rather brief duration. No causative agent had been found.

It now appears that at least some of these men suffered from encephalo-myorcarditis without, however, the heart and brain involvements found in those animals to whom the malady is fatal. The disease in the soldiers may have existed only as a complication to some other malady.

The evidence to date indicates that while the disease effects man it is now very serious. Research will be continued, however, because disease-causing viruses are likely to undergo slight mutations which make them devastating.

The other new virus malady-- which also does not appear serious at present-- is Fort Bragg fever.

Its characteristic symptoms are a brief fever and a rash found chiefly on the front of the legs. The virus has been isolated and is being studied. It appears to be an extremely delicate virus which rapidly is inactivated when kept in extreme cold. This does not effect most viruses.

Finding of some chemical substance which will be effective against viruses-- especially the virus of influenza-- is one of the major goals of present medical research. Some progress has been made in this direction, Dr. Smadel reported. One drug which seems to inhibit temporarily the growth of flu virus is closely related to atabrine, the malaria-suppressive used on such a wide scale during the war. This particular drug would appear to have no practical value at present. During the past month Rockefeller Institute workers have reported that certain biological substances, such as apple pectin and certain blood substances, have an inhibitory effect on the flu virus.

The status of the research at present holds out considerable promise for the near future.

MORE

MEDICAL SYMPOSIUM HELD AT ARMY MEDICAL CENTER (Continued)

Resume of "NEWER CONCEPTS OF CONTROL OF RESPIRATORY DISEASES"
By Dr. Colin MacLeod, New York University, College of Medicine

Substantial advances toward control of the common respiratory diseases--- colds, influenza and pneumonia--- now may be close at hand, due largely to facts developed from large scale army experience during the war.

The indications are that these maladies can be substantially reduced through a combination of immunization with antigens already available and a lessening of sources of infections.

This whole group, however, still present puzzling problems for which medical science gradually is finding answers. It is a curious fact that certain virus diseases--- the group to which colds and influenza belong-- never occur more than once in the same individual. That is, one attack usually confers permanent immunity. Such maladies are chicken pox, mumps, measles and small-pox. But apparently only short period immunity, at the best, is conferred by antigens against the respiratory diseases.

The outstanding difference, he pointed out, is in the incubation period. The group against which permanent immunity is obtained have incubation periods ranging from 7 to 26 days. The periods for colds and influenza are from one to three days. This brings into the picture the so-called "anamestic" or secondary response. The purpose of an antigen is to bring about the production of antibodies to the disease by the body itself. Certain cells apparently are detailed for this work. An antigen rouses them to action but this requires from seven to ten days.

Thenceforth, however, these cells remain on the alert. The response to a second and very much smaller dose of the antigen will be much greater and much quicker-- generally in from three to six days.

Germs of the disease invading the system act precisely as "a booster shot" of the antigen. The cells which manufacture antibodies come into action at once. But in the case of the respiratory diseases with their very short incubation periods even the much faster reaction is not fast enough. The malady can become established before it can get under way.

Thus apparently there is little hope of immunizating a population against colds or influenza by "shots in the arm". It would be an unimaginably big job to keep everybody adequately immunized by repeated antigen injections all the time.

The other side of the picture, however, that every one who has been immunized reduces by that much the amount of the infective organism in circulation. Whether one contracts a disease after partial immunization depends largely on the number of germs encountered.

MORE

MEDICAL SYMPOSIUM HELD AT ARMY MEDICAL CENTER (Continued)

It has been shown recently, for example, that the point of attack of the influenza virus is the mucous membrane of mouth and nose. When one has been immunized a small amount of the antibodies thus produced find their way to this membrane and attack the germ at its point of entrance. However, this is only from a tenth to a twentieth as much as is circulating in the blood stream at the same time. To prevent flu, other than by constant and frequent vaccinations, it is essential that the amounts of the germ finding their way to the respiratory passages be insufficient to overwhelm the minute quantities of antibody present. Thus, to insure any sort of protection, the sources of infection must be kept at a low level. One is more likely to catch flu in an office where everybody else has a severe case than in an office where only one man has a mild case.

Thus, .. every immune person serves as a wall against the spread of the disease.

This has been demonstrated in an extensive army experiment with pneumonia---a bacterial rather than virus disease but which apparently follows about the same laws so far as immunity is concerned.

Other papers given before the symposium included: "Medical Aspects Atomic Bomb", by Colonel James P. Cooney, MC, Atomic Energy Commission, Washington, D.C.; "Results of 100 Cases of Plastic Surgery", by Dr. Donald W. Macomber, Fitzsimons General Hospital, Denver, Colorado; "What Physical Medicine has to Offer the Medical and Surgical Practitioner", by Dr. Frank H. Krusen, Mayo Clinic, Rochester, Minnesota; "Clinical Pathological Conference", by Colonel Virgil Cornell, MC, Walter Reed General Hospital, Washington, D. C.; "Intensive Psychotherapy", by Dr. Norman Q. Brill, Veterans Administration, Washington, D. C.; "Testicular Tumors", by Dr. Lloyd G. Lewis, Walter Reed General Hospital, Washington, D. C.

E. L. HAMILTON, SGO STATISTICIAN, WORKS WITH INTERNATIONAL COMMITTEE OF WORLD HEALTH ORGANIZATION

Mr. Eugene L. Hamilton, Chief, Medical Statistics Division, Office of The Surgeon General, formerly Lieutenant Colonel, Sanitary Corps, attended the recent joint meeting of the International Committee for the Preparation of the Sixth Decennial Revision of the International Lists of Diseases and Causes of Death and the United States Committee on Joint Causes of Death held in Ottawa, Canada. Mr. Hamilton was appointed a member of the United States Committee on Joint Causes of Death by the Secretary of State with the concurrence of the Secretary of War. This was the first meeting of internationally famous experts to revise the uniform list of death causes which are important in helping doctors throughout the world to classify diseases and chart their trends.

MORE

ARRIVALS, OFFICE OF THE SURGEON GENERAL

MAJOR JOSEPH W. CRIM, MAC, of San Antonio, Texas, formerly of Enl Tech Sch, Brooke Army Medical Center, Fort Sam Houston, Texas, assigned to Office of Personnel, Personnel Authorization Unit.

MAJOR WILLIAM O. KRAUSE, PC, of Belleville, Illinois, formerly of Medical Field Service School, Brooke Army Medical Center, Fort Sam Houston, Texas, assigned to Army Medical Research & Development Board.

DEPARTURES, OFFICE OF THE SURGEON GENERAL

COLONEL EUGENE W. BILLICK, MC, of Monongahela, Pennsylvania, formerly Assistant for War & Mobilization Planning, Office of Plans, assigned to Headquarters, Fourth Army, Fort Sam Houston, Texas.

LIEUTENANT COLONEL CHARLES B. PERKINS, MC, of Seattle, Washington, formerly Chief of Military Personnel Division, Office of Personnel, attached unassigned to Student Detachment, Walter Reed General Hospital, Washington, D.C.

1ST LIEUTENANT ROBERT B. PENDER, MC, of Utica, New York, formerly of Physical Standards Division, Induction & Appointment Branch, assigned to MDW Station Hospital, Fort Belvoir, Virginia.

1ST LIEUTENANT CHARLES B. REINER, MC, of Philadelphia, Pennsylvania, formerly of Physical Standards Division, Induction & Appointment Branch, assigned to Brooke Army Medical Center, Fort Sam Houston, Texas.